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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/625,348	07/23/2003	Michael C. Breslin	28810/04001	8604

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EXAMINER

CARRILLO, BIBI SHARIDAN

ART UNIT PAPER NUMBER

1746

DATE MAILED: 12/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/625,348

Applicant(s)

BRESLIN ET AL.

Examiner

Sharidan Carrillo

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 01232004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-25 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the fluids (i.e. gases) and liquids recited in claims 5 and 6, does not reasonably provide enablement for the use of any type of gas or liquid. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The claims embrace an invention which contains any known fluid/liquid, which could/can be selected from literally thousands. It does not appear to be feasible that any liquid or gas would function in the present invention. Further, for one skilled in the art to reproduce the present invention (which must be possible, if the specification is adequate), there would clearly be undue experimentation to do so in an attempt to figure out which liquids and gases work and which ones do not.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 16 are indefinite because it is unclear what one of ordinary skill in

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the art would consider as a pressurized fluid. Claim 2 is indefinite because it is unclear at what point the non-wetting agent is retained on the surface. Further, how does one of ordinary skill in the art define "some". Claim 3 is indefinite because it is unclear what one of ordinary skill in the art would consider as an "elevated temperature". Claim 4 is indefinite because it is unclear what one of ordinary skill in the art would consider as a "near" the melting point. Claim 4 is indefinite since it is not clear what is the metal and the melting point of the metal, the limitations of the temperature of the fluid at or near the melting point of the metal renders the claim indefinite. Claims 10-14 are indefinite because the non-wetting agent is a solid composition and claims 10-11 are dependent on claim 1 which recites a fluid, a fluid being a gas or liquid by definition. Claim 10 is indefinite because it is unclear what one of ordinary skill in the art would consider as "other carbon sources". Claim 13 is indefinite because the "fluid stream" lacks positive antecedent basis. Claim 14 is indefinite because it is unclear what is meant by "another carbon form". Does applicant intend the carbon forms recited in the Markush group of Claim 10 or other carbon sources not recited in claim 10. Claim 17 is indefinite because "the molten metal atoms" and "the metal portion of the ceramic" lacks positive antecedent basis. Claim 15 is indefinite because it is unclear what is meant by "thermal management equipment". Claim 19 is indefinite because "fused silica" lacks positive antecedent basis. Claims 20 and 21 are indefinite because applicant is claiming a solid, however a fluid, by definition is a gas or liquid.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-5, 7-8, 15, 25, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Sykes (5922144).

In reference to claims 1 and 25, Sykes teaches a method of removing metal from a surface by applying pressurized gas at an angle of incidence of at least 45 degrees (col. 2, lines 5-10, col. 3, lines 50-65). In the instant specification, the term "non-wetting agent" is defined by a contact angle of less than 1-5 degrees. Since Sykes teaches 45 degrees, the limitations of "non-wetting agent" is met by the teachings of Sykes. Additionally, Sykes teaches the same cleaning agent as the instantly claimed invention. Sykes teaches using pressurized oxygen and claim 2 recites the gas being air. Additionally col. 1, lines 15-17 teaches acetylene.

In reference to claims 2, 4, and 27 and in view of the indefiniteness, the limitations are met by Sykes. In reference to claim 3, refer to col. 4, lines 38-40. In reference to claim 5, Sykes teaches pressurized oxygen and in col. 1, lines 15-17, Sykes teaches acetylene. In reference to claim 7, the limitations are met since Sykes teaches the contact angle within the range of the contact angle of the non-wetting

agent. In reference to claim 8, Sykes teaches pressurized oxygen with a combustible gas. In reference to claim 15, Sykes teaches cutting steel which functions as an "armor" for the ship. The steel functions as an armor for the ship.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Wrangell teaches cutting steel. Moore et al. teaches a metal removal process. Bissonnette and Diehl teach a cutting torch.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharidan Carrillo whose telephone number is 571-272-1297. The examiner can normally be reached on Monday-Friday, 6:00a.m-2:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sharidan Carrillo
Primary Examiner
Art Unit 1746

bsc



SHARIDAN CARRILLO
PRIMARY EXAMINER